

Claims

1. Recombinant animal virus derived from a virus which naturally not uses humans or other animal species as a host or dead-end host, being replication-competent or -deficient in and having the ability to transduce primary cells *in vitro* with a multiplicity of infection of less than 1, said primary cells derived from organisms being not the natural or dead-end host.
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2. The recombinant animal virus according to claim 1, further having the ability to efficiently transduce cells *in vivo* at low particle numbers in the range of less than 10^6 to 10^8 particles per organism.
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3. The recombinant animal virus according to claim 2, wherein the transduction results in a biologically measurable induction of an immune response, expression of a transgene product sufficient to induce preventive or therapeutic or diagnostic effects in the treated organism.
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4. The recombinant animal virus according to any of the preceding claims, said virus being an equine herpesvirus.
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5. The recombinant animal virus according to any of the preceding claims, wherein said primary cells are derived from human beings, pet animals or livestock.
6. The recombinant animal virus according to any of the preceding claims comprising a transgene.
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7. The recombinant animal virus according to any of the preceding claims lacking at least one gene which is essential for replication in its natural host or cells or cell lines derived thereof.
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8. The recombinant animal virus according to any of the preceding claims, comprising ORI_S and/or ORI_L, and the packaging (pac) sequences.

9. Use of the recombinant animal virus according to any of the preceding claims for the preparation of a pharmaceutical or diagnostic agent or a vaccine to treat or diagnose or immunise against a disease, wherein said recombinant animal virus is administered to the treated subject at low particle numbers in the range of less than 10^6 to 10^8 particles per dosage.
10. The recombinant animal virus according to any one of claims 1 to 8 for use as a gene targeting vector, wherein said recombinant animal virus is administered to the treated subject at low particle numbers in the range of less than 10^6 to 10^8 particles per dosage.
11. Primary cells transduced with the recombinant animal virus according to any one of claims 1 to 8.
12. Packaging cell lines harboring at least one recombinant animal virus according to any one of claims 1 to 8, lacking virus packaging sequences, ORI_S and/or ORI_L , but provides and complements the required and essential genes removed from the vectors for virus DNA packaging *in trans*.